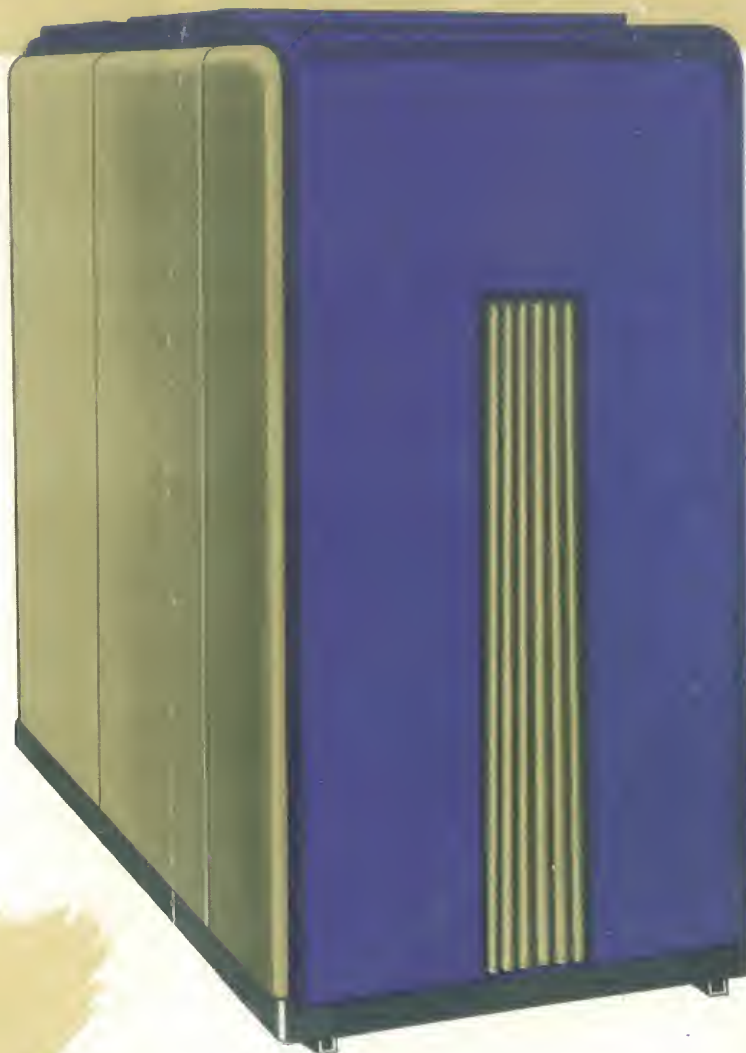


GAS FIRED

Luxaire

Gravity Furnace and Air Conditioning Units

OIL FIRED



THE C.A. OLSEN MANUFACTURING COMPANY

Luxaire

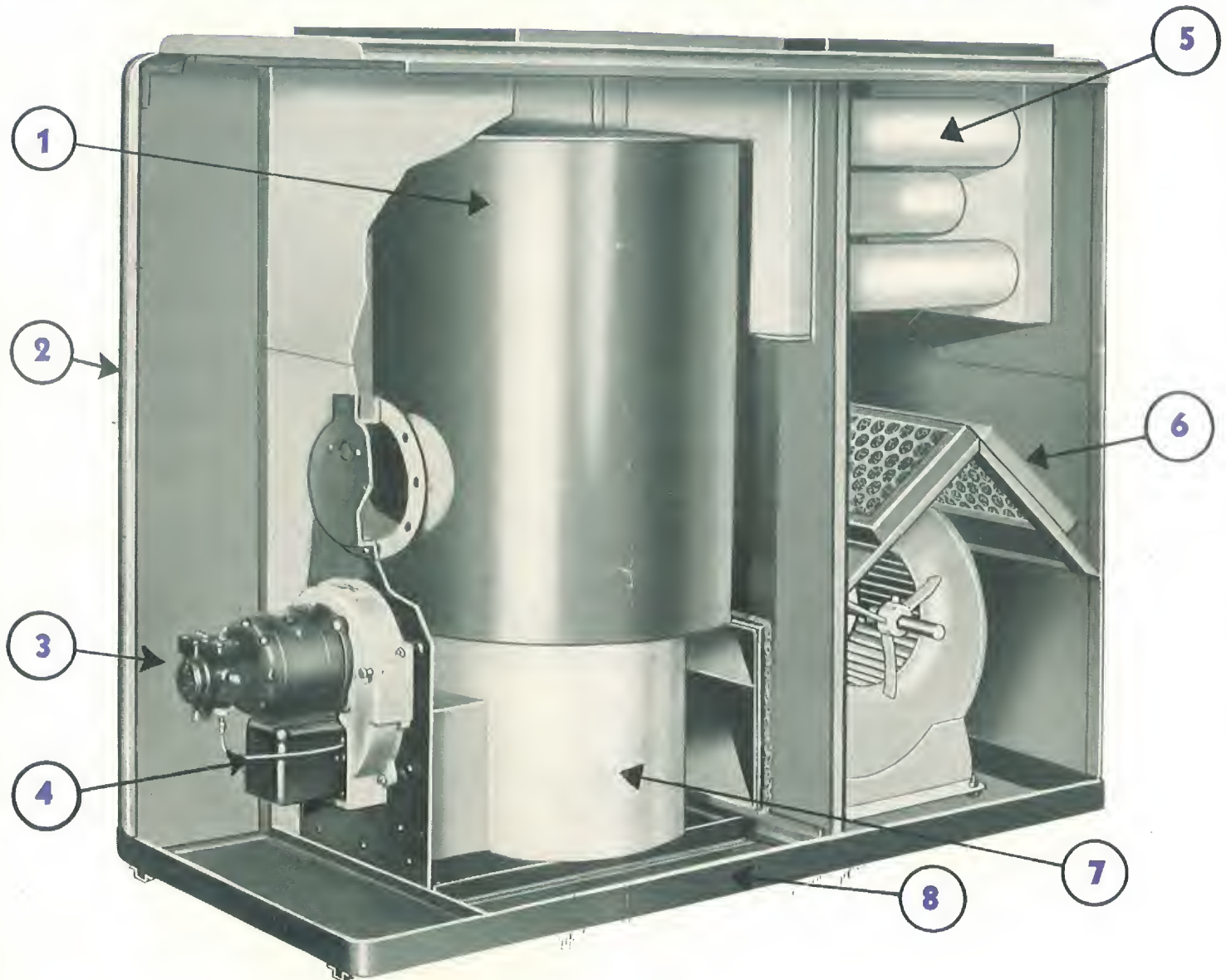


HEATING & AIR CONDITIONING UNITS

ELYRIA, OHIO

Luxaire's NEW AUTOMATIC *Oil* FIRED *Air Conditioning Unit*

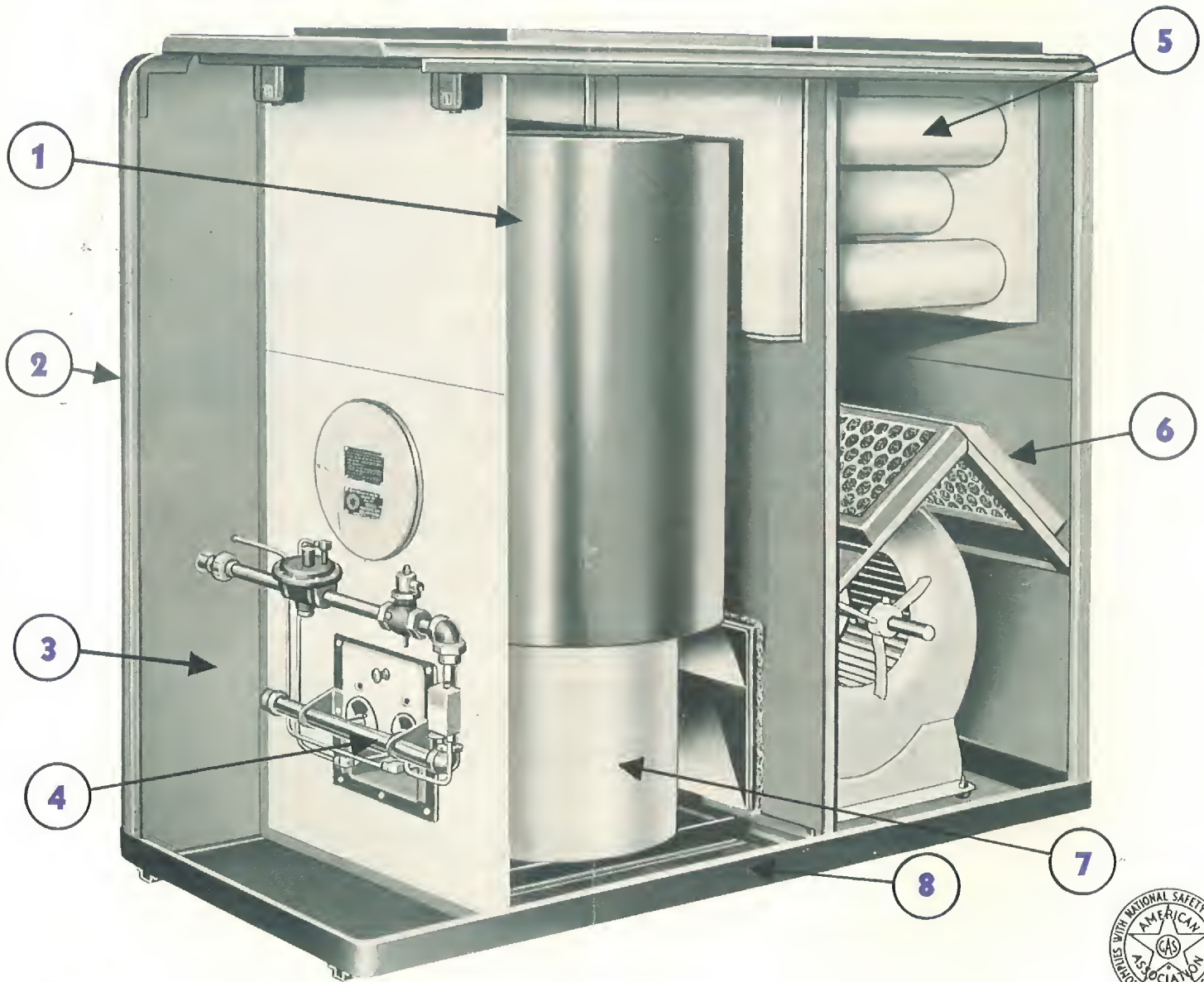
EASILY and QUICKLY CONVERTED FOR GAS BURNING



- 1** Radiation shield. Absorbs heat radiated by combustion chamber. Increases heating surface and heating capacity. Keeps cabinet relatively cool.
- 2** The cabinet. Smart, distinctive, with die-formed, rounded corners. Designed by one of America's foremost stylists. Baked enamel inside and outside. Cabinet door is securely held in place, yet is easily removed.
- 3** Burner Vestibule. Is 14" deep to accommodate most Gun Type Burners. Inspection panel allows easy inspection of combustion chamber. Round door, with glass observation port permits inspection of combustion.
- 4** Luxaire Gun Type Burner—Co-ordinated and designed for efficient, quiet, economical operation.
- 5** Tubular Radiator. Proof against expansion and contraction noises. Removal of the upper rear cabinet panel makes the tubes readily accessible for inspection or cleaning through convenient, easy-to-get at clean-out ports.
- 6** Door provides easy access to blower, motor, filters. Cabinet panel below door can be quickly taken out for removal of blower.
- 7** Combustion Chamber. Round, proof against expansion and contraction noises. Gas-tight, durable, efficient.
- 8** Metal Floor. Welded to effect one piece construction. Prevents infiltration of dusty basement air. No grouting is necessary.

Luxaire's NEW AUTOMATIC *Gas* FIRED *Air Conditioning Unit*

EASILY and QUICKLY CONVERTED FOR OIL BURNING



- 1** Radiation shield. Absorbs heat radiated by combustion chamber. Increases heating surface and heating capacity. Keeps cabinet relatively cool.
- 2** The cabinet. Smart, distinctive, with die-formed, rounded corners. Designed by one of America's foremost stylists. Baked enamel inside and outside. Has die-formed, cabinet door. Requires no inner liner.
- 3** Vestibule 14" deep. Has removable panel for interior inspection of the unit.
- 4** Ribbon type burners are easily removed for inspection or cleaning without dismantling the gas supply manifold.

- 5** Tubular Radiator. Proof against expansion and contraction noises. Removal of the upper rear cabinet panel makes the tubes readily accessible for inspection or cleaning through convenient, easy-to-get at clean-out ports.
- 6** Door provides easy access to blower, motor, filters. Cabinet panel below door can be quickly taken out for removal of blower.
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Luxaire THE FINEST IN AUTOMATIC

AIR CONDITIONING UNIT (without vestibule) for OIL or GAS



No. O-76-E

Oil Fired Air Conditioning Unit
with Oil burner exposed.

This new, Luxaire air conditioning unit for either oil or gas firing is available without a vestibule, as illustrated here, and also with a vestibule and cabinet door.

These compact, versatile units embody the same distinctive features in design and construction as the time proven models of greater heating capacity.

The heavier, enameled cabinet houses the heavy gauge, durable, steel heating element, welded leak-proof and gas-tight; the heat absorbing radiation shield; the tubular radiator which causes no expansion and contraction noises and which is so easy to inspect or clean through convenient clean-out ports; and blower, motor and filters which are readily accessible.

A complete, compact, efficiently operating unit is obtained either by installing the plate-mounted Oil Burner with its distinctive installation and operating features, or the Multi-port Gas Burner that can be inspected or removed without disturbing the gas supply manifold.



No. A-120-E

Gas Fired Air Conditioning Unit with
Gas burner and controls exposed.



GRAVITY FURNACE (without vestibule) for OIL or GAS



No. OG-85

Oil Fired Gravity Furnace.

Like the air conditioning units, this gravity furnace is designed both for Oil firing and for Gas firing, and is equally efficient with either fuel.

This gravity furnace is available only with the burner exposed, illustrated opposite. Except for blower, motor and filters, the same design and construction features of the air conditioning unit are incorporated in this Gravity Furnace.

The same flexibility for installing either the plate-mounted Oil Burner or the Multi-port Gas Burner is a distinctive feature in the modern design and construction of this unit.



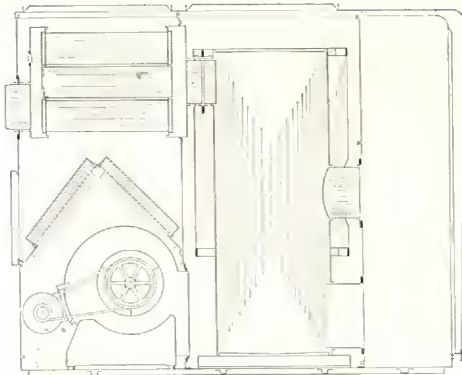
No. G-125

Gas Fired Gravity Furnace.



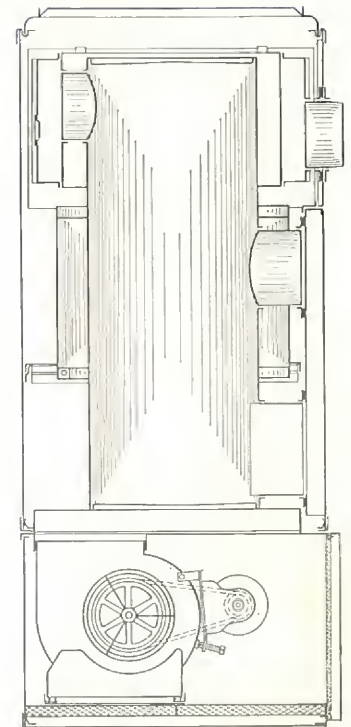
Air Conditioning Equipment

DETAILED DIAGRAMS



Side Elevation of Unit
with 5 Tube Radiator

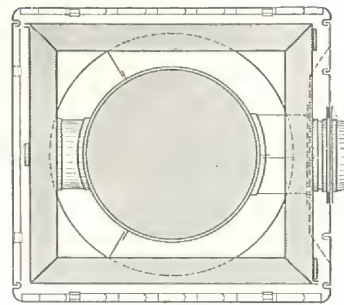
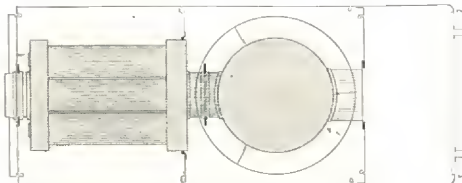
Side View of Utility Air
Conditioning Unit



PLAN VIEW OF UNIT
WITH 5 TUBE RADIATOR

The Diagrams illustrate No. O-116 Oil Unit and No. A-160 Gas Unit—Radiators of which have five tubes. Radiators with three tubes are used with all other basement units.

Plan View of Utility Air
Conditioning Unit



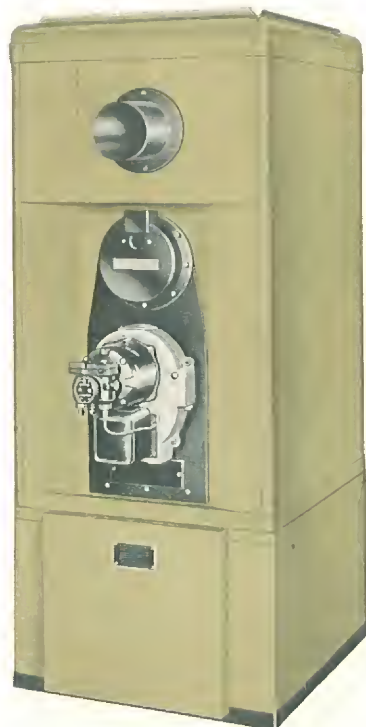
UTILITY AIR CONDITIONING UNIT for OIL or GAS

The Utility Air Conditioning Unit, like all other models in this series, is designed for Oil firing and for Gas firing, and is equally efficient with either fuel.

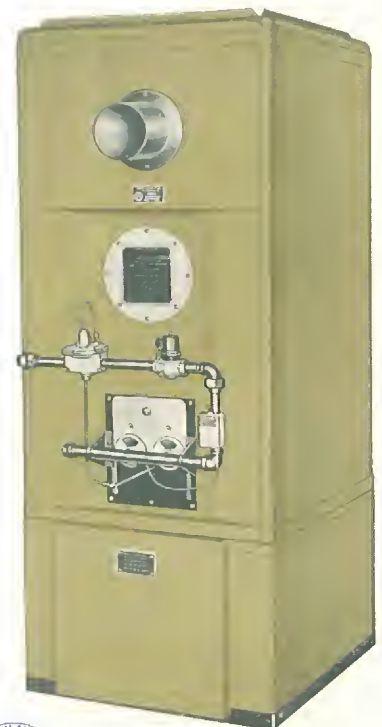
Here is a rugged, durable heating element enclosed in an attractive cabinet of heavy, rigid construction. Advanced design and construction have produced a compact, economically operating unit whether equipped with either the plate-mounted Oil Burner or the Multi-port Gas Burner.

The radiator which encircles the upper part of the combustion chamber, extracting the heat from the products of combustion before they enter the flue, is equipped with cleanout ports which make inspection and cleaning easy.

Return air can enter this unit through either side, or can be drawn in through the base.



No. OH-106-E
Oil Fired Utility
Air Conditioning Unit



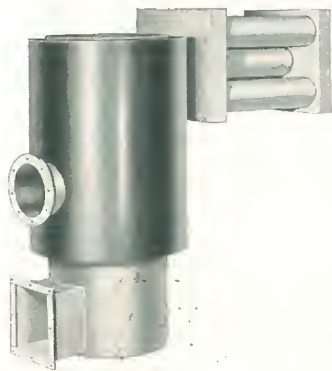
No. H-125-E
Gas Fired Utility
Air Conditioning Unit



Luxaire THE FINEST IN AUTOMATIC

THE HEATING ELEMENT

The heating elements are made of No. 14 gauge steel. However, No. 12 gauge steel heating elements are available for use in manufactured gas areas, if required. Seams are automatically welded by the submerged arc welding process to insure a permanently leakproof, gastight unit.



Steel supports raise the combustion chamber from the base of the cabinet, allowing the circulating air to impinge on the base of the heating element, thereby utilizing all the heating surface.

The heat-absorbing radiation shield surrounding the combustion chamber eliminates noise-making inner liners, and reduces the heat loss through the outer cabinet.

The large, tubular radiator of welded construction eliminates expansion and contraction noises — makes a leak-proof, gastight unit. —

EASY TO CLEAN RADIATOR

The upper rear cabinet panel is easily and quickly removed exposing the radiator tube clean-outs for inspection or cleaning, with a clean-out opening for each tube in the radiator. Few radiators, if any, are more readily accessible for inspection or cleaning than this one. See the illustration below.

Cabinet Advantages . . Accessibility

The smartly styled cabinet with die-formed rounded corners, has a smooth, glossy, baked enamel finish that is easy to keep clean and is a handsome addition to the basement.

This new cabinet is built of a heavier gauge of steel which provides a more substantial, a more rigid cabinet assembly.

All parts of the cabinet are die-formed, assuring ease and speed in assembly. Interlocking slip joints provide a tight, leakproof cabinet.

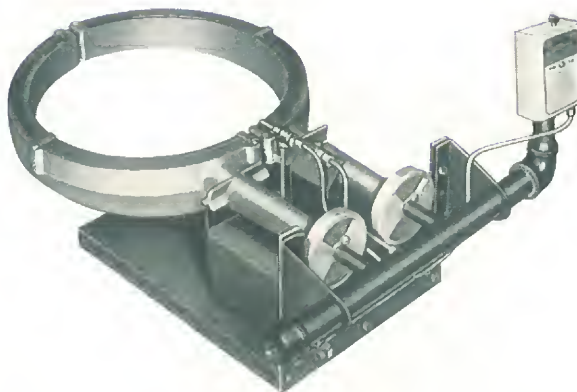
The design of the easy-to-remove, die-formed cabinet door provides the necessary air for efficient combustion without dust-catching louvers. On vestibule models removing the door exposes the entire vestibule for easy access to the burner and controls.



Accessibility to Filters, Blower and Motor is unusually easy.

A heavy, one-piece base which includes a securely welded metal floor completes the dust-tight, leakproof cabinet. This base does not require grouting nor a basement platform.

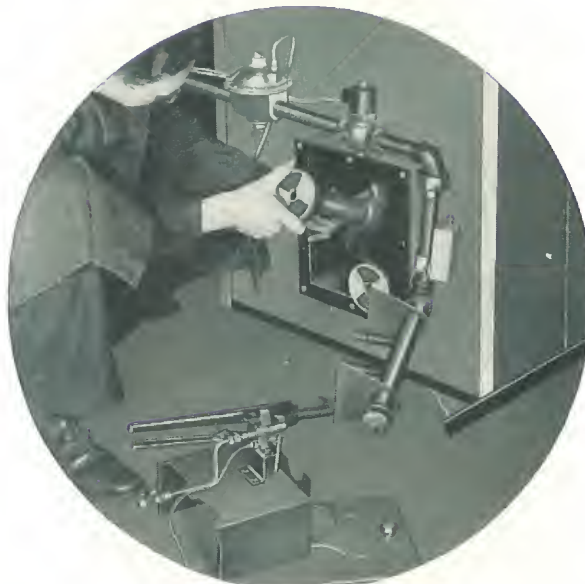
GAS BURNER MULTI-PORT RIBBON-TYPE



A new, vastly improved, ribbon-type burner develops the highest gas burning efficiency. It is noiseless in operation and is proof against "flash-back." The crimped stainless steel ribbons are readily removable, will not corrode and are not affected by high temperatures. Burners are available for all types of gases and gas mixtures.

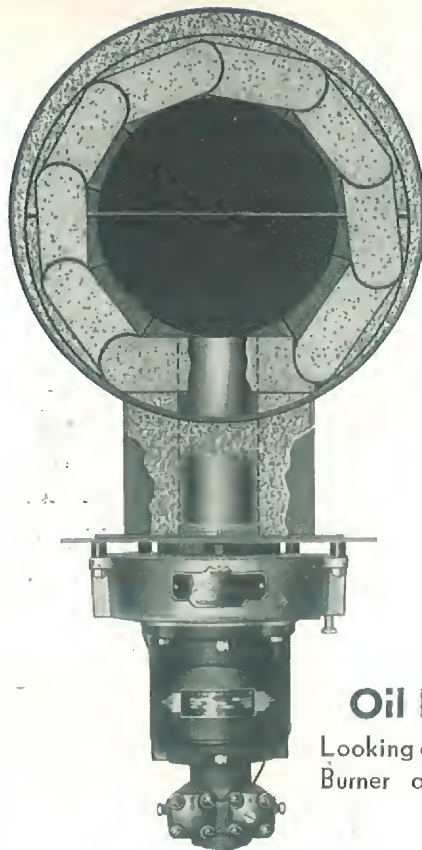
The burner support insures perfect positioning of the burner and pilot in relation to gas supply manifold and the combustion chamber.

Burner is Easily Removed



A distinctive feature is the ease with which the burners can be removed from the combustion chamber without dismantling the gas supply manifold.

Air Conditioning Equipment



Oil Burner

Looking down on Oil Burner and Firebox

Possibly the most important feature of this new burner is its ability to burn the heaviest of domestic heating oils, including catalytic-cracked oils, and to provide clean and efficient combustion with these modern fuels.

Another noteworthy feature—in installations with faulty draft, where products of combustion escape through openings provided in observation door collar, these fumes are sucked in immediately by the burner fan before they can escape into the basement.

THE NEW *Luxaire* Plate-Mounted Oil Burner

Simple to install in correct position

Installation of this burner is unbelievably simple. Yet it is virtually impossible to install it except in its correct position.

First—install Hearth or Firebox.

Next, attach the Burner Mounting Plate, which has 4 heavy spacer studs, to front of heating element. Next, install the Air Tube. Then, place Oil Burner Chassis on the 4 Studs, which attaches the Burner in its correct position. Finally, tighten the 4 nuts on the Studs, which connects the Oil Burner Chassis to the Air Tube.

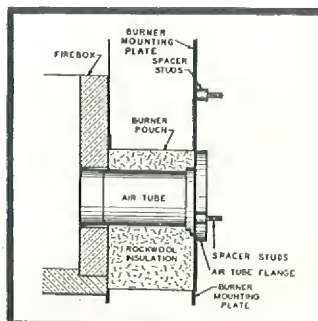


Diagram showing installation of firebox — Air Tube - Burner Mounting Plate

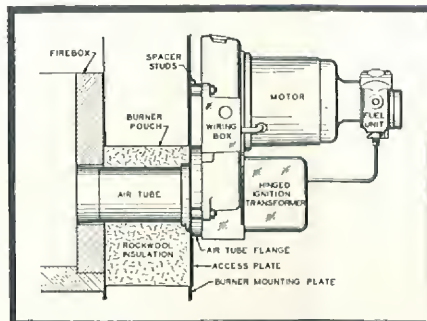


Diagram of complete installation

Oil Burner Chassis being placed on the 4 Spacer Studs of Mounting Plate.

The entire Burner Chassis can be removed and replaced at any time without disturbing the Firebox, the Air Tube, or breaking the seal when Air Tube is cemented to Firebox.

The complete nozzle-line-electrode assembly is easily removed by loosening one screw, and swinging aside the hinged Transformer, located at the rear of burner housing.

The Motor, Pump and Fan of this Burner are a dynamically balanced unit. Longer life, less wear, quieter operation result from this construction.

Series "O" Oil Air Conditioning Unit—Ratings • Specifications

Unit No.	Input at Burner	B.T.U. at Bonnet	B.T.U. at Register	C.F.M. Maximum at $\frac{3}{8}$ " S.P.	Blower Number	Dia. of Blower Wheel	Dia. of Blower Pulley	Motor H.P.	Number Filters	Approx. Shipping Weight Unit Only Lbs.	Shipping Weight Complete with Burner Lbs.
O-76-E	119,000 Btu (.85 gal.)	89,250	75,863	1300	A-10	10 $\frac{3}{8}$ "	7"	$\frac{1}{4}$	1 (20x25)	384	575
O-76	119,000 Btu (.85 gal.)	89,250	75,863	1300	A-10	10 $\frac{3}{8}$ "	7"	$\frac{1}{4}$	1 (20x25)	404	595
O-90	140,000 Btu (1 gal.)	106,000	90,000	1600	A-12-3	12 $\frac{3}{8}$ "	8"	$\frac{1}{4}$	2 (16x25)	484	660
O-116	180,000 Btu (1.3 gal.)	136,000	116,000	1600	A-12-3	12 $\frac{3}{8}$ "	8"	$\frac{1}{4}$	2 (16x25)	498	674

Series "OH" Oil Utility Air Conditioning Unit—Ratings • Specifications

OH-106-E	140,000 Btu (1 gal.)	106,000		1300	A-10	10 $\frac{3}{8}$ "	8"	$\frac{1}{4}$	2 (16x20)		625
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Series "OG" Oil Gravity Furnace—Ratings • Specifications

OG-85	140,000 Btu (1 gal.)	100,000	85,000								579
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Series "A" Gas Air Conditioning Units—Ratings

Unit No.	With Natural, Manufactured or Mixed Gas			With Liquefied Petroleum Gas			Approved High Altitude Ratings (2000 to 5200 ft.)			Shipping Weight Standard Heating Element	Shipping Weight 12 Ga. Heating Element
	A.G.A. B.T.U. Inlet	A.G.A. B.T.U. Bonnet	Register Capacity B.T.U.	A.G.A. B.T.U. Inlet	A.G.A. B.T.U. Bonnet	Register Capacity B.T.U.	A.G.A. B.T.U. Inlet	A.G.A. B.T.U. Bonnet	Register Capacity B.T.U.		
A-120-E	120,000	96,000	81,600	120,000	96,000	81,600	120,000	96,000	81,600	443	474
A-120	120,000	96,000	81,600	120,000	96,000	81,600	120,000	96,000	81,600	443	478
A-140	140,000	112,000	95,200	130,000	104,000	88,400	140,000	112,000	95,200	531	570
A-160	160,000	128,000	108,800							545	610

Series "H" Gas Utility Air Conditioning Unit—Rating

H-125-E	125,000	100,000		125,000	100,000		125,000	100,000		494	562
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Series "G" Gas Gravity Furnace—Rating

G-125	125,000	93,750	79,687	125,000	93,750	79,683	125,000	93,750	79,683	436	506
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Series "A" Gas Air Conditioning Units—Specifications

Unit No.	C. F. M. Maximum at $\frac{3}{8}$ " S.P.	Blower No.	Wheel Dia.	Pulley Dia.	Belt No.	Motor H.P.	FILTERS		GAS PIPING		
							Number	Size	Nat.	Mfg.	Liq. Pet.
A-120-E	1300	A-10	10 $\frac{3}{8}$ "	7"	39	$\frac{1}{4}$	1	20 x 25	$\frac{3}{4}$ "	1"	$\frac{1}{2}$ "
A-120	1300	A-10	10 $\frac{3}{8}$ "	7"	39	$\frac{1}{4}$	1	20 x 25	$\frac{3}{4}$ "	1"	$\frac{1}{2}$ "
*A-140	1600	A-12-3	12 $\frac{3}{8}$ "	8"	47	$\frac{1}{4}$	2	16 x 25	$\frac{3}{4}$ "	1"	$\frac{1}{2}$ "
A-160	1600	A-12-3	12 $\frac{3}{8}$ "	8"	47	$\frac{1}{4}$	2	16 x 25	$\frac{3}{4}$ "	1"	$\frac{1}{2}$ "

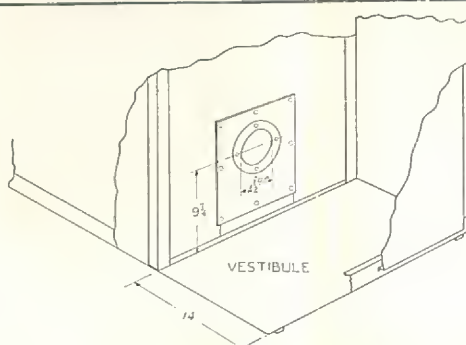
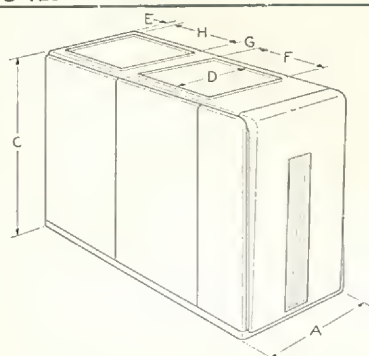
*For installation in High Altitude (2000 to 5200 feet) No. A-140 Unit requires $\frac{1}{3}$ H.P. motor.

Series "H" Gas Utility Air Conditioning Unit—Specifications

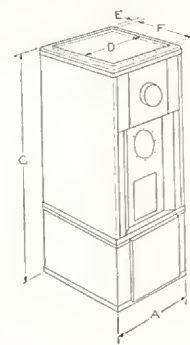
H-125-E	1300	A-10	10 $\frac{3}{8}$ "	8"	41	$\frac{1}{4}$	2	16 x 20	$\frac{3}{4}$ "	1"	$\frac{1}{2}$ "
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Series "G" Gas Gravity Furnace—Specifications

G-125									$\frac{3}{4}$ "	1"	$\frac{1}{2}$ "
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Sketch of vestibule when unit is supplied without burner



Dimensions

Unit No.	A Cabinet Width	Overall Cabinet Depth	C Cabinet Height	D x F Air Discharge Opening	D x H Air Intake Opening	G	E	Flue Oil	Pipe Gas	Height Center Flue Opening Oil	Height Center Flue Opening Gas
O-76-E—A-120-E	28"	†*45"	58"	24" x 20"	24" x 15"	4"	2"	7"	6"	46"	57"
O-76 —A-120	28"	61 $\frac{1}{2}$ "	58"	24" x 20"	24" x 15"	4"	2"	7"	6"	46"	57"
O-90 —A-140	28"	70 $\frac{1}{2}$ "	57"	24" x 24"	24" x 22"	4"	2"	7"	7"	42 $\frac{1}{2}$ "	54 $\frac{1}{2}$ "
O-116 —A-160	28"	70 $\frac{1}{2}$ "	57"	24" x 24"	24" x 22"	4"	2"	7"	7"	42 $\frac{1}{2}$ "	54 $\frac{1}{2}$ "
OH-106-E—H-125-E	30"	†*32"	75"	26" x 28"	18" x 30"		2"	7"	6"	63"	74"
OG-85—G-125	28"	†*44"	56"	26" x 42"	(cut in field)		1"	7"	6"	46"	57"

* On O-76-E and OG-85 add approx. 14 $\frac{1}{2}$ " for projection of Oil Burner. * On OH-106-E add approx. 12 $\frac{1}{2}$ " for projection of Oil Burner.
† On A-120-E, G-125 add approx. 6" for projection of Gas Burner. † On H-125-E add approx. 4" for projection of Gas Burner.